

Diversification Strategy and Customer Satisfaction in Telecommunication Companies in North Central Nigeria

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Abstract

Customer satisfaction is a key factor for any organisation that want to stay ahead of its competitors, and there appears to be an increasing strategic shift of telecom operators from traditional voice and data services to diversified digital service platforms amid rising competition and changing customer expectations. This study examined the effect of diversification strategy on customer satisfaction in telecommunication companies in North-Central Nigeria. Specifically, the study focused on service diversification, market diversification, and product diversification. A descriptive research design was adopted, and primary data were collected through structured questionnaires administered to subscribers of MTN Nigeria Communications Plc (MTN), Airtel Networks Ltd (AIRTEL), Globacom Ltd (GLO), and Emerging Markets Telecommunications Services Ltd (EMTS) across Nasarawa, Plateau, Benue, Kogi, Niger, Kwara, and the Federal Capital Territory. The population of the study consists of 30,847,236 subscribers. A sample size of 400 respondents was determined using Yamane's formula. Responses were analyzed using descriptive statistics and multiple regression analysis with the aid of SPSS (Version 27). Findings revealed that diversification strategy has a significant positive effect on customer satisfaction in the study area. Specifically, service diversification exerted the strongest effect on customer satisfaction, followed by product diversification, while market diversification also showed a significant but comparatively lower effect. The regression results showed that the variables combined explained approximately 67% of the variation in customer satisfaction. The study therefore recommended that telecommunication companies should prioritize investment in customer-oriented service innovations, develop context-specific diversified products, and sustain strategic market expansion supported by reliable network infrastructure. Regulatory support through quality enforcement and infrastructure sharing is also essential to ensure that diversification efforts translate into real consumer benefits.

Keywords: *Diversification Strategy, Service diversification, Product Diversification, Market Diversification, Customer Satisfaction.*

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Background to the Study

The telecommunication industry is a strategically vital sector, serving as the backbone for digital connectivity, financial inclusion, and socio-economic development, particularly in a developing economy like Nigeria. Here, the sector underpins e-commerce, digital banking, and public sector transformation. Following the transition from a monopolistic system to one of Africa's most competitive markets, major operators like MTN, Airtel, Glo and EMTS, are compelled to pursue sustainable growth strategies to enhance customer satisfaction and market performance (Udo & Asogwa, 2024; Nigerian Communications Commission [NCC], 2024).

In response to declining traditional voice revenues from over-the-top services, telecom companies globally are adopting diversification strategies to stabilize income and deepen customer engagement (Teece, 2023; Global System for Mobile Communications Association [GSMA], 2024). This involves deliberate expansion beyond core operations into new areas such as mobile banking, digital entertainment, and enterprise ICT solutions (Alhassan & Suleiman, 2024). Contemporary research frames diversification not just for profit, but as a tool to enhance customer value by creating integrated service ecosystems that improve convenience and experience. However, this also introduces operational complexities that can negatively impact satisfaction if poorly managed (Zhang, et al., 2024; Lawal & James, 2024).

In Nigeria, diversification has intensified since 2020, transforming operators into multi-service digital platforms through mobile money, streaming services, and IoT solutions (Adewale & Arogundade, 2024; GSMA, 2024). Despite this, customer satisfaction remains mixed, with persistent complaints about drop calls, data quality, and billing (NCC, 2025). This paradox highlights a critical gap: it is unclear whether diversification enhances satisfaction through added value or dilutes service focus and quality. The relationship is context-dependent; related diversification (mobile money) may strengthen loyalty, while unrelated ventures (entertainment content) may cause confusion and inefficiency (Teece, 2023; Zhang et al., 2024).

This gap is especially pertinent in North-Central Nigeria, a region with stark digital contrasts between urban hubs like Abuja and rural areas with weak connectivity (Salami & Garba, 2024; Eze & Maduekwe, 2023). Macroeconomic pressures have further heightened customer price sensitivity and expectations (GSMA, 2024; NCC, 2025). While customer satisfaction is a key determinant of loyalty and digital adoption (Kotler et al., 2024; Awuku et al., 2023), empirical studies directly linking diversification strategy to satisfaction at a regional level remained severely limited, with most Nigerian research treating diversification merely as a financial variable rather than a customer-oriented instrument (Lawal & James, 2024; Udo & Asogwa, 2024). This study therefore, aims to examine the effect of diversification strategy on customer satisfaction in telecommunication companies in North Central Nigeria.

The specific objectives are to:

- i. Examine the effect of service diversification on customer satisfaction in telecommunication companies in North-Central Nigeria.

- ii. Assess the effect of market diversification on customer satisfaction in telecommunication companies in North-Central Nigeria.
- iii. Determine the effect of product diversification on customer satisfaction in telecommunication companies in North-Central Nigeria.

Literature Review

Diversification Strategy

Diversification strategy refers to the strategic practice by which an organization expands its operations into new markets, services, or products in order to mitigate risks, maximize returns, and enhance customer value (Audu & Inuwa, 2021; Chen et al., 2018). In the dynamic Nigerian telecommunication industry, diversification strategy is increasingly seen as a vital aspect of strategic management that can help telecom companies remain competitive and responsive to changing customer needs. Diversification strategies are broadly categorized into related diversification and unrelated diversification. Related diversification involves expanding into areas that are similar or complementary to the company's existing operations. For Nigerian telecom firms, this might include the introduction of internet banking partnerships, mobile money services, entertainment streaming, or broadband services. These additions are strategically aligned with core telecom services and are designed to create synergies, increase customer loyalty, and drive higher satisfaction levels through integrated service offerings (Onuoha & Oji-Okoro, 2020).

Unrelated diversification, on the other hand, entails entering into industries or service areas that are not directly connected to the organization's core business. For example, a telecom company might venture into real estate investment, insurance, or e-commerce platforms. While this approach can spread risk and open up new revenue streams, it can also challenge organizational focus and stretch resources unless managed carefully (Ibhagui & Olokoyo, 2018). In the Nigerian telecom sector, diversification is often pursued as a response to market saturation, declining revenue from traditional voice services, and increasing customer demand for bundled or value-added services. By diversifying into related digital services and financial technologies, telecom companies can meet broader customer expectations and foster improved satisfaction through convenience, accessibility, and innovation (Agwu & Ekwe, 2022).

Service Diversification

Service diversification is a strategic expansion beyond a firm's core offerings to enhance value, revenue, and competitiveness. This is particularly vital in a fast-evolving sector like telecommunication. Grounded in strategic theories like the resource-based view and dynamic capabilities, it involves leveraging on existing assets to seize new digital opportunities (Tece, 2023). In telecom, this transforms operators into digital ecosystems, moving into areas such as mobile finance, cloud computing, and IoT solutions (GSMA, 2024). This shift from competing on price to competing on ecosystem strength, enhances perceived customer value and satisfaction (Zhang, et al., 2024). In a developing economy like Nigeria, diversification is crucial for digital and financial inclusion, with telecoms becoming primary platform for services like mobile money, gaming (Adewale & Arogundade, 2024), a trend supported by national policy (Federal Ministry of Communications and Digital Economy, 2023).

From a customer perspective, diversification improves satisfaction by increasing convenience and reducing transaction costs, as customers value integrated service breadth (Kotler, et al., 2024). Effective diversification also enables data-driven personalization, which strengthens customer relationships and loyalty (Lawal & James, 2024). However, the success of service diversification hinges on managing operational complexity; without parallel investments in infrastructure and support, it can undermine reliability and trust (Awuku, et al., 2023). Furthermore, the impact of diversification varies regionally; in the contexts of North-Central Nigeria, urban areas show higher adoption of advanced digital services compared to rural regions, indicating that diversification must be adapted to local infrastructure and literacy levels to uniformly boost satisfaction (Salami & Garba, 2024; Eze & Maduekwe, 2023).

Market Diversification

Market diversification is a corporate growth strategy where a firm expands into new customer segments, geographic territories, or distribution channels to reduce dependence on existing markets and exploit new demand opportunities, serving as both a defensive and offensive tactic (Teece, 2023). In telecommunications, this involves extending network coverage and adapting offerings such as tailored vertical solutions or low-data tariffs to underserved rural areas or new demographic segments, which requires investments in both physical infrastructure and localized market adaptation (GSMA, 2024; Eze & Maduekwe, 2023). Strategically, diversification varies by scope, depth, and intent, from social-inclusion drives to high-margin enterprise services (Salami & Garba, 2024; Udo & Asogwa, 2024). Its impact on customer satisfaction is dual: it can enhance accessibility and loyalty from underserved groups but risks diluting service quality if expansion outpaces local operational capacity, necessitating differentiated approaches between urban and rural contexts, as seen in North-Central Nigeria (Lawal & James, 2024; Eze & Maduekwe, 2023; NCC, 2024). Effective execution thus relies on orchestrated distribution, localized support, and customer education, with success linked to market-specific design rather than mere geographic expansion (GSMA, 2024; Adewale & Arogundade, 2024).

Product Diversification

Product diversification involves a firm extending its portfolio with new or improved offerings to deliver broader value and capture additional revenue. This is exemplified in telecom companies through the launch of digital services like mobile money, creation of bundled packages with third-party platforms, and introduction of tiered technical packages (Zhang *et al.*, 2024). This strategy is driven by declining traditional revenues and the need to increase customer stickiness through integrated, convenient offerings such as operator-branded wallets that combine multiple functions (GSMA, 2024; Adewale & Arogundade, 2024). Its success hinges on aligning product design with consumer value drivers focusing on convenience, cost savings, and integration which can enhance perceived value and satisfaction, whereas superficial bundling without core service reliability risks frustration and cognitive overload (Kotler, et al., 2024; Salami & Garba, 2024; Lawal & James, 2024). Effective implementation requires strong product management, and in contexts like Nigeria, success varies; for instance, mobile money with robust agent networks gains traction, while poorly localized content bundles struggle (GSMA, 2024; Adewale & Arogundade, 2024). In North-Central Nigeria,

diversification must be localized, offering services like agricultural info bundles or affordable cached content to reliably deliver context-relevant benefits and improve customer satisfaction.

Customer Satisfaction

Customer satisfaction is a fundamental concept in marketing and service management that reflects the degree to which a company's products or services meet or exceed customer expectations. It serves as a crucial indicator of an organisation's performance, customer loyalty, and long-term sustainability. It is a cumulative evaluation shaped by repeated service interactions, not just a single transaction, and is determined by whether perceived performance meets or exceeds expectations (Adeyemi & Lawal, 2023). In the telecommunications industry, this is driven by factors like network reliability, responsive customer care, pricing fairness, digital service quality, and efficient complaint resolution (Bello & Sadiq, 2024; Gado, 2019). The theoretical foundation of customer satisfaction is rooted in expectation disconfirmation theory, which posits that satisfaction arises when perceived performance surpasses expectations, a concept validated in modern digital service contexts (Mohammed & Idris, 2024). In Nigeria specifically, satisfaction is shaped by technological and environmental factors such as network coverage, internet connectivity, data affordability, and localized service support, with regional disparities significantly influencing subscriber evaluations (Okorie & Danjuma, 2024; Sule & Tanko, 2024).

As a critical strategic outcome, customer satisfaction directly influences loyalty, retention, and positive word-of-mouth, with satisfied customers being more committed and less price-sensitive (Garba & Iliya, 2023). In today's competitive landscape, customer satisfaction is increasingly linked to service diversification and innovation, with customers expecting a portfolio that includes digital services like mobile banking and entertainment streaming (Musa & Abdulrahman, 2025). This connection makes satisfaction a crucial indicator for assessing the effectiveness of diversification strategies, particularly in regions like North-Central Nigeria, where local infrastructure and service challenges directly shape customer judgment (Sule & Tanko, 2024).

Empirical Review

Adewale and Arogundade (2024) investigated the relationship between mobile financial service diversification and customer satisfaction among telecom subscribers in South-West Nigeria. The study adopted a cross-sectional research design and data were collected using structured questionnaires. The population comprised registered subscribers of major telecommunications operators (MTN, Airtel, Glo, and 9mobile) across selected states in South-West Nigeria, while a sample size of 400 respondents was used. Regression method was used for data analysis. The study found that service diversification through mobile wallets, agent banking, and digital bill payment platforms had a significant positive effect on customer satisfaction. Subscribers reported higher convenience, trust, and perceived service value when multiple financial services were integrated into a single telecom platform. The study further revealed that customer satisfaction was strongly influenced by transaction reliability and service accessibility, suggesting that diversification improves satisfaction only when system stability is ensured.

Similarly, Awuku et al. (2023) examined service diversification and customer loyalty in the telecommunications sector in Ghana. The study adopted a quantitative survey research design and utilized structural equation modeling (SEM) for analysis. The population consisted of active mobile network subscribers from leading telecom providers (MTN Ghana, Vodafone Ghana, and AirtelTigo) across major urban centers such as Accra and Kumasi, with a sample size of 250 respondents. The findings showed that diversified digital services such as mobile money, digital entertainment subscriptions, and enterprise solutions significantly enhanced customer satisfaction, which in turn mediated the relationship between service diversification and customer loyalty. However, the study also found that weak customer support and network instability reduced the positive impact of diversification on satisfaction, highlighting the moderating role of service quality.

Eze and Maduekwe (2023) conducted a study on market diversification and telecom service adoption in North-Central Nigeria, focusing on rural–urban differences. The study employed a comparative cross-sectional survey design. The population comprised telecom subscribers residing in both rural and urban communities across states such as Benue, Kogi, and Plateau. Primary data were collected using structured questionnaire administered to 450 respondents. Descriptive and multiple regression analyses were employed to analyse the data. The results showed that telecom companies that extended services into underserved rural markets through agent networks and localized service packages achieved higher customer satisfaction than firms that relied solely on urban-centred service models. The study emphasized that market diversification must be accompanied by infrastructure upgrades and customer education to yield positive satisfaction outcomes.

Zhang et al. (2024) analyzed product diversification and user satisfaction among telecom platform users in China. The study adopted a longitudinal research design. The population consisted of registered users of major Chinese telecom platforms such as China Mobile, China Unicom, and China Telecom across multiple provinces, with an estimated sample size of about 500 user observations over time. The study used panel data analysis with Fixed/Random Effects and Dynamic Panel Models (GMM). The result showed that expanded digital product portfolios particularly cloud storage, cybersecurity services, and bundled content services had a statistically significant effect on customer satisfaction and platform stickiness. However, excessive product complexity without clear user guidance reduced satisfaction among older and low-literacy users, suggesting that diversification must be carefully structured to avoid service overload.

Lawal and James (2024) examined diversification strategy and customer experience in the mobile telecommunications industry. The study adopted a mixed-methods research design, combining quantitative survey data with qualitative interviews. The population comprised mobile telecom subscribers of MTN, Airtel, Globacom, and 9mobile, with a sample size of 400 respondents and 30 in-depth interview participants. The study utilized stratified sampling technique, with data analysed using multiple regression and content analyses. The findings revealed that while diversified service portfolios improved customer engagement and perceived innovativeness, unresolved service failures, billing inconsistencies, and delayed

complaint resolution weakened overall satisfaction. The study concluded that diversification alone does not guarantee customer satisfaction unless it is supported by strong service recovery systems and transparent billing processes.

Salami and Garba (2024) studied the effect of market and service diversification on customer satisfaction among telecom users in North-Central and North-West Nigeria. The population comprised telecom subscribers from selected states including Kaduna, Kano, Niger, and Nasarawa, with a sample size of 400 respondents. The study adopted a quantitative, cross-sectional research design, and utilized multi-stage sampling techniques, with data analysed using regression method. The authors found that service diversification had a stronger positive influence on customer satisfaction than market diversification. Customers valued the availability of mobile financial services, entertainment platforms, and digital payment services more than mere geographic network expansion. The study also revealed that income level and digital literacy significantly moderated the diversification–satisfaction relationship.

Theoretical Framework

The study is anchored on Expectation Disconfirmation Theory (EDT). EDT, originally proposed by Oliver (1980) and further elaborated by Kotler, et al., (2024) suggested that customer satisfaction is determined by the difference between customer expectations and the perceived performance of a product or service. Satisfaction occurs when the perceived performance meets or exceeds expectations, creating positive disconfirmation, while dissatisfaction arises when performance falls below expectations, resulting in negative disconfirmation. This theory is highly relevant to the present study, which investigates the effect of diversification strategies on customer satisfaction of telecommunication companies in North-Central Nigeria. Diversification strategies, encompassing service, product, and market diversification, introduce new offerings or expand access to existing services, thereby influencing customer perceptions and experiences. For instance, service diversification through mobile money platforms, entertainment subscriptions, or digital learning applications allows customers to evaluate these services against their expectations. When such services are reliable, convenient, and add tangible value, they exceed customer expectations and enhance satisfaction. Similarly, product diversification, such as bundled packages, cloud solutions, or IoT services, shapes satisfaction by providing customers with broader functionality and integrated solutions that meet or surpass anticipated utility. Market diversification, achieved by expanding telecom services into new geographic regions or underserved communities, also influences satisfaction by addressing customer expectations regarding accessibility and service availability. Applying EDT in this context provides a theoretical basis for understanding how diversification strategies translate into customer satisfaction, highlighting the role of expectation management and performance delivery. By examining whether telecommunication diversification initiatives meet or exceed subscriber expectations, the study can explain variations in satisfaction and loyalty, offering a robust framework for empirical investigation in North-Central Nigeria.

Methodology

The study adopted a descriptive research design, which is appropriate for collecting quantitative data from a large population and for examining relationship among variables as they occur in their natural setting. This design was considered suitable because it allows for the systematic collection of data from telecommunication subscribers regarding their perceptions of service, product, and market diversification strategies and how they affect customer satisfaction. The design also enables the use of statistical tools such as multiple regression analysis to determine the degree and direction of the effect of diversification strategies on customer satisfaction. By relying on first hand data from subscribers across different states in North-Central Nigeria, the research design provides an objective and empirical basis for generalizing the findings to the wider population of telecom users within the region. The population of the study comprised all subscribers of selected telecommunication companies operating in North-Central Nigeria, specifically MTN, Airtel, Glo, and EMTS, across the states of Nasarawa, Plateau, Benue, Kogi, Niger, Kwara, and the Federal Capital Territory (FCT). This population was considered appropriate because these subscribers are direct beneficiaries of the diversification strategies implemented by telecommunication companies in the region and are therefore well-positioned to provide valid responses regarding customer satisfaction. Due to the large and dispersed population totalling 30,847,236 subscribers, according to the NCC (2025), a sample size of 400 respondents was determined using Taro Yamane's (1967) formula at a 5% margin of error. To account for potential non-response and invalid response, this number was increased by 10%, as supported by Martinez-Mesa et al. (2016), resulting in a final sample size of 440 respondents. Respondents were selected using a multi-stage sampling technique, which combined purposive and simple random sampling to ensure balanced representation across the selected states and network providers. To achieve its objectives, the study utilised primary data obtained through a structured questionnaire administered to subscribers of MTN, AIRTEL, GLO, and EMTS in the study area. The data collected were coded and analyzed using the Statistical Package for the Social Sciences (SPSS, Version 27). Descriptive statistics, including frequencies, percentages, and mean scores, were used to summarize respondents' demographic characteristics and the features of the study variables. To examine the effect of diversification strategies on customer satisfaction, multiple regression analysis was employed, with the aid of SPSS version 28 to analyse the data collected. The regression model is expressed as:

$$CUS = \beta_0 + \beta_1SVD + \beta_2PDD + \beta_3MKD + \mu$$

Where *CUS* represents Customer Satisfaction, *SVD* is Service Diversification, *PDD* is Product Diversification, *MKD* is Market Diversification, β_0 is the constant, β_1 to β_3 are the coefficients of the independent variables, and μ is the error term. The level of significance was set at 5% ($p < 0.05$) to determine whether the independent variables exert significant effects on customer satisfaction. This approach ensures a clear understanding of the relative contribution of each dimension of diversification to enhancing customer satisfaction among telecommunication subscribers in North-Central Nigeria.

Results and Discussions

This section presents the results of both the descriptive and multiple regression analysis.

Descriptive Analysis of Variables

The result of the descriptive statistics is presented in table 1 below.

Table 1: Descriptive Statistics of Diversification Strategy and Customer Satisfaction

Variable	Mean	Standard Deviation	Remark
Service Diversification	4.16	0.56	High
Market Diversification	4.04	0.60	High
Product Diversification	4.10	0.59	High
Customer Satisfaction	4.18	0.58	High

Source: SPSS Output, 2025

The mean scores indicate that respondents generally perceive high level of diversification in services, products, and market reach, which positively affect customer satisfaction. Service diversification recorded the highest mean, highlighting the importance of customer-facing innovations such as mobile apps, digital platforms, and responsive support systems.

Regression Analysis

To examine the effects of diversification strategies on customer satisfaction, a multiple regression analysis was conducted based on the study objectives.

Table 2: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error	Durbin-Watson
1	0.817	0.667	0.662	0.258	1.894

Source: SPSS Regression Output, 2025

The R-value of 0.817 shows a strong positive relationship between diversification strategies and customer satisfaction. The R² value of 0.667 indicates that approximately 66.7% of the variation in customer satisfaction is explained by service, market, and product diversification strategies. The model is statistically significant at $p < 0.05$. The Durbin-Watson statistic of 1.894 indicates that there is no autocorrelation. The results of the estimates are therefore reliable for prediction.

Table 3: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	52.798	6	17.599	264.396	0.000
Residual	26.359	393	0.0666		
Total	79.157	399			

Source: SPSS Regression Output, 2025

The ANOVA results above show that the overall model was fit for the study, and reliably predicts customer satisfaction. With F-statistic of 264.40, and p-value of 0.000, which is less than the critical value of 0.05, the results show that the model was significant and that diversification strategy has significant effect on customer satisfaction in telecommunication companies in North Central Nigeria.

Table 4: Regression Coefficients

Predictor	B	Std. Error	Beta	t-value	Sig. (p)	Decision
Constant	0.455	0.101		4.50	0.000	Significant
Service Diversification	0.328	0.056	0.308	5.86	0.000	Significant
Market Diversification	0.215	0.049	0.203	4.39	0.001	Significant
Product Diversification	0.271	0.052	0.253	5.21	0.000	Significant

Source: SPSS Regression Output, 2025

Based on the regression analysis, all dimensions of diversification strategy significantly enhance customer satisfaction for telecom operators in North Central Nigeria, with their relative impact revealing a clear hierarchy. Service diversification ($\beta = 0.328$) has the strongest positive effect on customer satisfaction, emphasizing the importance of responsive customer-facing innovations like mobile-apps, and digital platforms. This means that for every one unit increase in Service diversification, customer satisfaction increases by 0.312 units, holding other factors constant. This is followed by Product diversification ($\beta = 0.271$) which significantly enhances satisfaction by improving product offerings and bundled products. Market diversification ($\beta = 0.215$) positively affects satisfaction, albeit to a lesser extent, showing that expanding network reach improves accessibility and customer perception. Collectively, the three dimensions explain a substantial portion (66.7%) of the variance in customer satisfaction, confirming that a well-balanced diversification strategy is essential for telecom operators in North-Central Nigeria.

Discussion of Findings

The study found that service diversification has the strongest positive effect on customer satisfaction. This highlights how important digital innovations like mobile apps, self-service platforms, and mobile banking are in shaping customer perceptions. Subscribers value the

convenience and integrated experience these services provide. This supports earlier researches by Adewale and Arogundade (2024) and Awuku *et al.* (2023) in Nigeria and Ghana respectively, which also linked service expansion to higher satisfaction. However, unlike some studies, such as Lawal & James (2024), that warn about poor implementation leading to dissatisfaction, the findings suggest telecoms in the region may have invested well in supporting infrastructure. For telecom companies, this means they should keep investing in customer-focused digital services, especially those tailored to local needs. For the government, it reinforces the need for policies that support digital inclusion and secure service innovation.

Product diversification also significantly boosts customer satisfaction. Customers appreciate broader product offerings such as bundled data plans, entertainment subscriptions, and locally relevant content packages. These options enhance perceived value and meet varied needs. This aligns with international studies such as Zhang *et al.* (2024) showing that expanded digital portfolios improve user satisfaction. However, while research like Zhang *et al.* (2024) cautioned that too much complexity without clear guidance can overwhelm older and low-literacy users, this was less evident here, possibly due to the sample's younger and more educated profile. Telecom firms should therefore continue developing context-specific bundles and value-added services. Government can assist by encouraging infrastructure sharing and supporting local digital content creation.

Market diversification positively influences satisfaction as well, though to a lesser extent than service or product diversification. Expanding network coverage and entering underserved areas improves accessibility and meets expectations for service availability. This matches studies such as Eze & Maduekwe (2023), that link geographic expansion to higher satisfaction in rural communities. However, the findings suggest that customers in North-Central Nigeria value service quality and product innovation more than mere geographic reach. This differs slightly from studies like Salami & Garba (2024), that emphasize rural expansion as a primary satisfaction driver, indicating regional variations in customer priorities. For telecom operators, this means market expansion must be supported by reliable infrastructure and localized offerings. For policymakers, it underscores the need to incentivize network investment in rural areas while ensuring service quality is maintained. Overall, the findings align with the underpinning theory for the study, that is, Oliver's (1980) theory of Expectation Disconfirmation, which posits that a customer is satisfied when perceived performance of a product or service meets or exceeds customer expectations.

Conclusion and Recommendations

This study conclusively demonstrates that service, market, and product diversification strategies each has a significant positive effect on customer satisfaction within the North-Central Nigeria's telecommunication sector. The findings directly address the research objectives, confirming that: (1) service diversification, which enhances digital platforms and customer support, has the strongest positive effect; (2) market diversification, involving expansion into new geographic areas and segments, also significantly improves satisfaction, though to a lesser degree; and (3) product diversification, through new bundled offerings and value-added services, substantially and positively influences customer satisfaction. Therefore,

a comprehensive and integrated diversification strategy is vital for telecom operators aiming to improve customer satisfaction in this competitive and diverse region. Therefore, the study recommended the following:

- i. Telecommunication companies should prioritize service diversification by investing in and strengthening digital self-service platforms and responsive customer support systems.
- ii. Telecommunication companies should sustain market diversification efforts by extending reliable and affordable network coverage to underserved areas within the region.
- iii. Telecommunication companies should advance product diversification by developing innovative, tailored bundled packages and value-added services that meet local subscriber needs.

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